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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,629	10/07/2005	Ragnar Tryggvason	05049.0005	8982
7590 Finnegan Henderson Farabow Garrett & DUNNER 901 New York Avenue NW Washington, DC 20001-4413			EXAMINER KURTZ, BENJAMIN M.	
			ART UNIT 1797	PAPER NUMBER
			MAIL DATE 06/02/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,629

Applicant(s)

TRYGGVASON ET AL.

Examiner

BENJAMIN KURTZ

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23, 24, 26-32, 34, 35, 37, 38, 43, 44, 46-52, 54, 55 and 57-72 is/are pending in the application.
- 4a) Of the above claim(s) 61-69 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23, 24, 26-32, 34, 35, 37, 38, 43, 44, 46-52, 54, 55 and 57-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 23, 24, 26-32, 34, 35, 37, 38, 43, 44, 46-52, 54, 55 and 57-72 are pending, claims 61-69 are withdrawn and claims 1-22, 25, 33, 36, 39-42, 45, 53 and 56 are cancelled.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 26-32, 34, 35, 38, 43 and 70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 26-32, 34, 35, 38, 43 and 70 all recite the first and second filter. There is no antecedent basis for the terms "first and second filter" in the claim if these claims depend from claim 23 as claim 23 only recites a filter. For examination purposes these claims are assumed to depend from only claim 24.

Claim Rejections - 35 USC § 102 and 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23, 24, 32, 34, 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Banks US 4 885 083.

Claim 23, Banks teaches a cartridge containing a particulate material wherein the cartridge includes: an inner spacer housing the particulate material, an inlet (25), an outlet (54) and a filter (22) arranged at the outlet, the filter configured to permit passage of a liquid through the filter but to prevent passage of the particulate material through the filter, wherein the filter permits the liquid to pass through the filter in a filter direction, wherein the filter includes at least one slit shaped opening having a first extension and a second extension, the second extension being substantially perpendicular to the filter direction and the first extension, wherein the second extension is significantly shorter than the first extension and is also significantly shorter than the length of the slit shaped opening in the filter direction, and wherein the filter is formed by a filter element having a shape of a substantially planar disc, the slit shaped opening extending through the filter element (fig. 1-2).

Claim 24, Banks further teaches the filter is a first filter and wherein the cartridge also includes a second filter (18) arranged at the inlet and the second filter being configured to permit passage of the liquid through the second filter in a filter direction but to prevent passage of the particulate material through the second filter, the second filter including at least one slit shaped opening having a first extension and a second extension, the second extension being substantially perpendicular to the filter direction and to the first extension, wherein the second extension of the second filter is significantly shorter than the first extension of the second filter and wherein the second filter is formed by a filter element, the slit shaped opening of the second filter extending through the filter element of the second filter (fig. 1-2).

Claims 32, 34 and 38, Banks further teaches the first extension of both the first filter and the second filter is substantially perpendicular to the filter direction (fig. 1-2); both the first and second filters include a plurality of slit shaped openings, which extend through the filter element of the first and second filter (fig. 1-2); and wherein the slit shaped openings of the filter elements of the first filter and the second filter having a first end and a second end, wherein the second extensions of the slit shaped openings of the first and second filter increase from a minimum value at one end of each of the slit shaped openings to a maximum value at the other end of the openings (fig. 1-2).

Claim 44, Banks teaches a cartridge containing a particulate material wherein the cartridge includes: an inner spacer housing the particulate material, an inlet (25), an outlet (54) and a filter (18) arranged at the inlet, and configured to permit passage of a

liquid through the filter but to prevent passage of the particulate material through the filter, wherein the filter permits the liquid to pass through the filter in a filter direction, wherein the filter includes at least one slit shaped opening having a first extension and a second extension, the second extension being substantially perpendicular to the filter direction and the first extension, wherein the second extension is significantly shorter than the first extension and is also significantly shorter than the length of the slit shaped opening in the filter direction, and wherein the filter is formed by a filter element having a shape of a substantially planar disc, the slit shaped opening extending through the filter element (fig. 1-2).

Claims 52, 54, 57 and 59, Banks further teaches the first extension is substantially perpendicular to the filter direction (fig. 1-2); the filter includes a plurality of slit shaped openings which extend through the filter element (fig. 1-2); the filter includes a peripheral support portion connected to the filter element and abutting an inner wall of the cartridge (fig. 1-2); and the slit shaped opening of the filter element has a first end and a second end wherein the second extension of the slit shaped opening decreases from a maximum value at the first end of the slit shaped opening to a minimum value at the second end of the opening (fig. 1-2).

3. **Claims 43 and 60 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Banks '083.**

Banks teaches the cartridge of claims 23, 24 and 44 but does not teach the filters or filter is made through an injection molding process. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USDQ 964 (1985). The process of making the filter of Banks is deemed a structural alternative to the process of injection molding.

4. Claims 26-30, 46-50, 70 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks '083.

Claims 26-30, 46-50, 70 and 71, Banks teaches the cartridge of claims 23, 24 and 44 but does not teach the specific dimensions of the second extension. The only difference between the prior art and the claimed invention is a recitation of relative dimension. [W]here the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device, *Gardner v. TEC Systems, Inc.*, 220 USPQ 777 (1984).

Claims 31 and 51, Banks teaches the cartridge of claims 23, 24 and 44 but does not teach the filter being polypropylene or polycarbonate. Making parts of filters out of polymer material is very well known in the art and these polymers are very well known in the art and would have been obvious to one of ordinary skill in the art at the time of invention because of their resistance to corrosion, ease of manufacture and relatively cheap cost.

5. Claims 35 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks '083 and O'Brien et al. US 1 932 117.

Banks teaches the cartridge of claims 23, 24 and 44 but does not teach the first extension of the filter or filters extends towards a center point of the filter element.

O'Brien teaches a filter (14) including at least one slit shaped opening having a first extension wherein the first extension extends towards a center point of the filter element (fig. 4).

The recited orientation of the slits is merely a rearrangement of the slits as taught by Banks. Shifting the position of an element is unpatentable if shifting the position of the element would not modify the operation of the device, *In re Japikse*, 86 USPQ 70 (1950). Furthermore, the recited orientation of the slits is known in the art as taught by O'Brien. The claim would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art.

6. Claims 37 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks '082, Barlow US 6 776 907 and Weis et al. US 3 730 348.

Claim 72, Banks teaches a cartridge containing a particulate material, wherein the cartridge includes: an inner space housing the particulate material, an inlet, an outlet, at least one first filter (22) arranged at the outlet, the first filter being formed by a filter element having a shape of a substantially planar disc, and at least a second filter (18) arranged at the inlet and configured to permit passage of a liquid through the filter, but to prevent passage of the particulate material through the filter, wherein the second filter permits the liquid to pass through the filter in a filter direction, wherein the second filter includes at least one slit shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction, and to the first extension, wherein the second extension is significantly shorter than the first extension and is also significantly shorter than the length of the slit shaped opening in the filter direction, and wherein the second filter is formed by a filter element, wherein the slit shaped opening extends through the filter element of the second filter (fig. 1-2). Banks does not teach the second filter being formed by a filter element having a conical shape.

Barlow and Weis each teach a filter (Barlow, (38); Weis, (40)) including at least one slit shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction, and to the first extension, wherein the second extension is significantly shorter than the first extension and is also significantly shorter than the length of the slit shaped opening in the filter direction, and wherein the

second filter is formed by a filter element having a conical shape, wherein the slit shaped opening extends through the filter element of the second filter (Barlow, fig. 1, 3, 4; Weis, fig. 1, 2 4, 5).

The recited conical shaped filter element is merely a recitation of the shape of the filter element. The configuration of the apparatus is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant, *In re Dailey*, 149 USPQ 47 (1966). Furthermore, the recited shape of the filter element is well known in the prior art as taught by Barlow and Weis. The claim would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art.

Claim 37, Banks teaches the cartridge of claim 24 but does not teach the second filter being formed by a filter element having a conical shape. A conical shaped filter element would have been obvious for the reasons stated above.

7. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Banks '083 in view of Richmond US 5 545 318.

Banks teaches the filter and cartridge of claim 57 where the peripheral support portion has a peripheral surface but does not teach a plurality of ridges. Richmond teaches a peripheral support (66) for a filter that includes a plurality of ridges (88) projecting from the peripheral surface and abuts an inner wall of a cartridge, wherein a thin gap (90) is formed between the peripheral surface and the inner wall, the gap

providing a further passage for fluid (fig. 4,8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the peripheral support as taught by Richmond with the filter of Barlow because the flange passages allow for increased flow through the filter (col. 6, lines 1-2).

Response to Arguments

8. Applicant's arguments with respect to claims 23 and 44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN KURTZ whose telephone number is (571)272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Kurtz
Examiner
Art Unit 1797

/Krishnan S Menon/
Primary Examiner, Art Unit 1797